Napata College

Graduation Project

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Knowledge, attitude and practices relative to oral cancer among Dentists in Khartoum State, Sudan

A graduation project submitted to the Napata College in partial fulfillment of Bachelor degree

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Submit date:

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Declaration

I declare that the research (Knowledge, attitude and practices relative to oral cancer among Dentists in Khartoum State, Sudan) in this graduation project is original and has only been submitted to Napata College to obtain Bachelor degree in Dentistry.

Dedication and Acknowledgements

In the name of God, the most gracious and most merciful, I would like to dedicate this humble effort

To my Father and Mother

Whom their endless love, affection, encouragement and support to attain this honor and success I

We would like to express my deepest gratitude and thankfulness to our supervisor and mentor Dr.Hidayah Mohammed Elyas how made this project work possible, We are deeply honored that she was our research supervisor and We appreciate all her efforts, advice, and great help.

We would like to thank all the staff in Napata College, for their assistance, help, and cooperation throughout the years of our bachelor residency.

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Knowledge, attitude and practices relative to oral cancer among Dentists in Khartoum State, Sudan

Abstract

Background:

Oral cancer affects the lip, tongue and other parts of the oral cavity. The stage at which oral cancer is diagnosed is a major determinant of mortality and morbidity following treatment. No single factor has been identified as the causative agent but, there are a number of high-risk factors that have been associated with oral cancer such as tobacco (smoking or chewable), alcohol, human papillomavirus (HPV), genetic mutation and die.

Objective:

This study conducted to investigate the knowledge of dentists regarding the risk factors, clinical aspects about oral cancer in Khartoum state, Sudan.

Materials and Methods:

This is a cross-sectional, descriptive study was conducted at Khartoum state, Sudan. A valid questionnaire was distributed via electronic link to the participants.100 dentists in hospitals and clinics in Khartoum state were participated in current study.

Results:

Out of 100 dentists, 67 were females and 33 were males. Regarding the specialty of participants the majority were GP (62). Oral & maxillofacial surgeon and Restorative dentist were the most specialty participated after GP. Most of them were less than 5 years of experience. About 93 of them selected Squamous cell carcinoma as most common cancer affect the oral cavity.Most of our participants think that the most common risk factor is habits as tobacco. Also leukoplakia has been chosen mostly as most common oral precancerous disorders.

Conclusion:

Assessing dentists' knowledge is one way to measure their performance. This study identified gaps in knowledge among dentists practicing in the Khartoum State, Sudan which strongly suggested that dentists need to increase their knowledge about oral cancer. More continuing education programs on risk factors and diagnosis of oral cancer should be organized to train dentists. Oral cancer screening should be a routine procedure for the high risk patients at the primary oral health care centers in Sudan.

Chapter One: Introduction and Literature Review

1. Introduction

Oral cancer (OC) is the 15th most commonly diagnosed cancer worldwide. It is a silent, invasive disease, which usually presents as a persistent, painless ulcer on the side of the tongue, or an intra-oral, red lesion without any disturbing symptoms. These signs are usually neglected by the patient and are sometimes unnoticed by dentists. The World Health Organization (WHO) Global Oral Health programs include two approaches to prevent Oral Cancer. Reduction of exposure to risk factors and early detection through screening.[1]

Late diagnosis, high mortality rates and morbidity leading to important disfigurement are characteristics of the disease worldwide. It is more common in the developing countries than in the developed countries.[2]

Oral and pharyngeal cancers are largely preventable and can be successfully treated when diagnosed at an early stage. Dentists are usually the first group who can examine patients for oral cancer and the early diagnosis highly depends on their knowledge with a major responsibility in the prevention and early detection of oral cancer. Accordingly, adequate training in this area will positively enhance dentists accountability towards their patients.[3]

The present study was conducted to assess the level of oral cancer knowledge, opinions, attitudes, and practices among dentists working in Khartoum State, Sudan.

2. Literature Review

Oral cancer is one of the global diseases. It is responsible for global mortalities about 130.000 people every year .Above 90% of all cancers of the oral cavity is oral squamous cell carcinoma .The diagnosis of OC in the early stage have a positive impact on increasing the rate of survival up to 5 years [4]

There has been an annual increase in the incidence of OC, due to rapid population increases in the last decade. The prognosis of OC depends on age, the general health of the patient, the type and location of the lesion, and the response to treatment.[1]

Several studies have assessed the dentists' knowledge, attitudes, and opinions regarding oral cancer and the early detection of oral cancer. These studies showed the necessity to enhance the knowledge on preventing and early detection of oral cancer.[2]

A study done in Qatar identified gaps in knowledge among dentists practicing in governmental health sector, which strongly suggested that dentists in Qatar could benefit from educational interventions (CPD courses) about the main clinical features of Oral Cancer and the evidence-based risk factors.[1]

Another study conducted in Jeddah found that the current knowledge and practice in oral cancer prevention and early detection among dentists is not up to the desired level. Accordingly it is suggested that continuous education strategies should be reassessed and emphasis given to oral cancer prevention and early detection.[3]

3. Justification:

Oral cancer is the most dangerous disease can attend to the dental clinic. Prevention is the best method that can be achieved by increase awareness among population and care providers followed by early detection of oral cancer to increase the chance of five years survival rate. Increase the awareness among the dentists is a golden method to face using of noticeable risk factors. Screening of high risk patient can help in reducing incidence of OC. So determining the incidence of oral cancers correlated with certain factors will be valuable.

4. Objectives:

General objectives:

This study aim conducted to investigate the knowledge of dentists regarding the risk factors, clinical aspects about oral cancer in Khartoum state, Sudan

Specific objectives:

1-Assessment of the level of knowledge about oral cancer & its associated factors among dentists in Khartoum State ,Sudan.

2. To evaluate the attitude of dentists regarding oral cancer

3-To find out how they dealing with oral cancer patients.

Chapter Two: Materials and Methods

Materials and Methods:

a) Study Design: This is a cross-sectional, descriptive study

b) Study duration from 4/7/2020 to 28/3/2021

c) Study Area and Population

Study area:

Dental hospitals & clinics in Khartoum State, Sudan.

Study population

Dentists in hospitals and clinics in Khartoum state, Sudan and dentists in other state be excluded from our study.

d) Sampling Technique

Convenience sampling technique was used includes some of dentists in Khartoum state, Sudan

Sample Size:

About 100 dentists were included in the current study as most of the other studies.

e) Study subject: selection & definitions

Dentists in hospitals and clinics in Khartoum state, Sudan and dentists in other state and other care providers will be excluded from our study

f) Data collection and Analysis:

A valid questionnaire which consisted of 17 questions was used

g) Data management and statistical analysis

The data were analyzed by using Statistical Package for Social Sciences (SPSS V 22).

h) Ethical Considerations:

Ethical approval obtained from Research Center of Napata College

i) Verbal consent will be obtained:

Consent has been taken from all participants and it was the first question in the electronic link if they agreed to participate or no

j) Inclusion and Exclusion Criteria

All dentists in Khartoum state, Sudan Were include in our study
And all dentists in other states of Sudan and other care providers were excluded from this study

k) Statistical analysis

SPSS version 22 has been used to analyze the data

Chapter Three: Results

Table (1): showing gender distribution of participants.

Table 1					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	33	33.0	33.0	33.0
	Female	67	67.0	67.0	100.0
Total		100	100.0	100.0	

Females (67%) were more than males (33%) in this study.

Figure (1): showing gender distribution of participants.

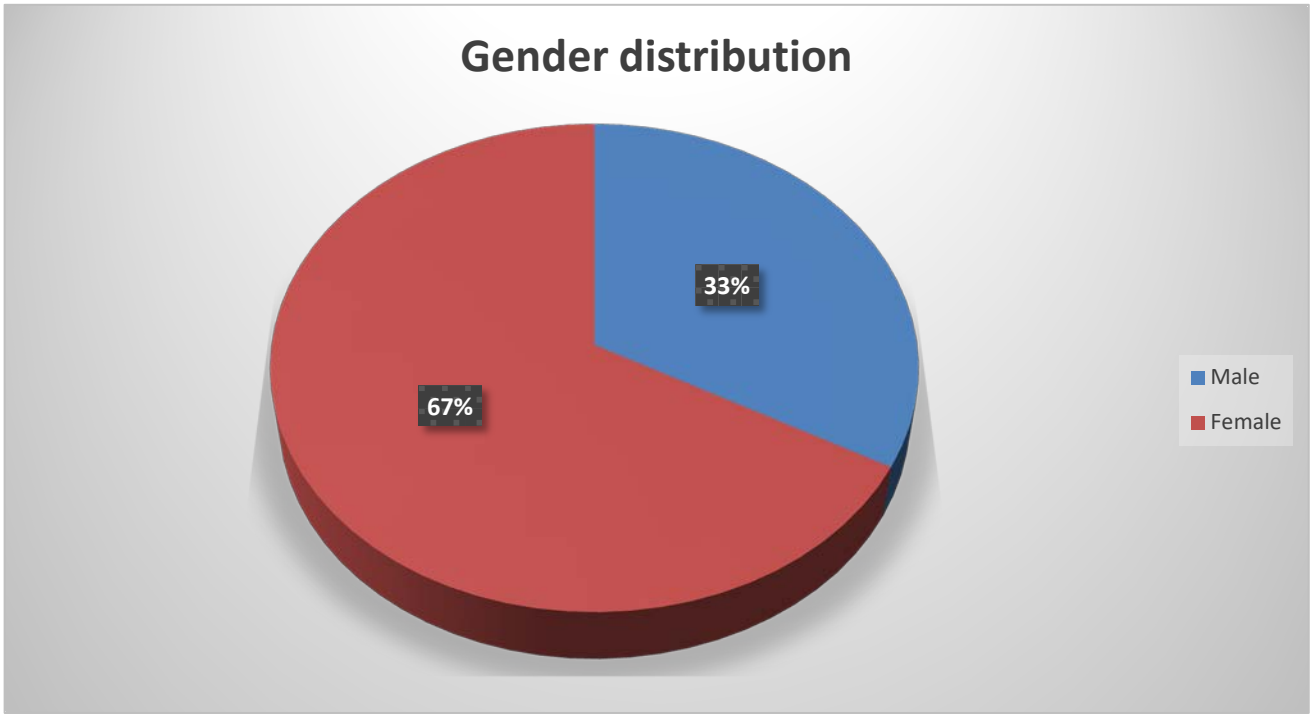


Table (2): showing practice of participants.

Table 2					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	GP	66	66.0	66.0	66.0
	Specialist	23	23.0	23.0	89.0
	Consultant	11	11.0	11.0	100.0
Total		100	100.0	100.0	

The majority (66%) were general practitioners (66%), followed by specialists (23%).

Figure (2): showing practice of participants.

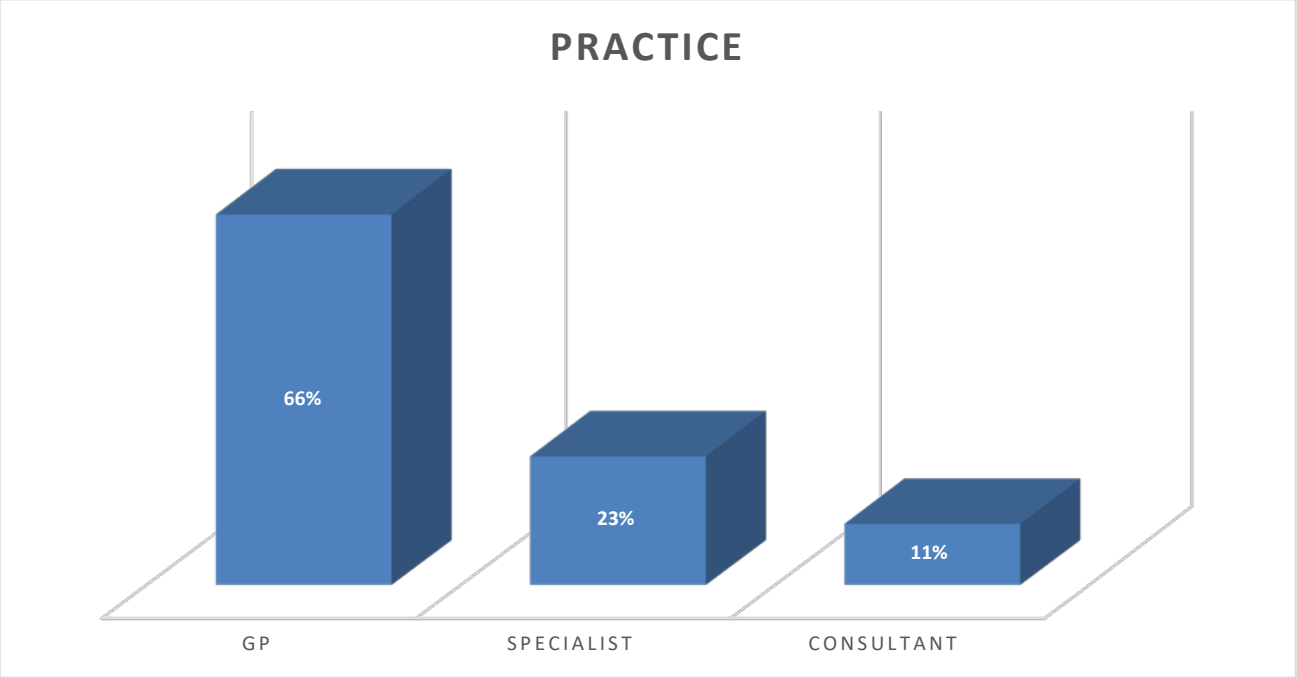


Table (3): showing specialty of participants.

Table 3					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	GP	62	62.0	62.0	62.0
	Oral & maxillofacial surgeon	9	9.0	9.0	71.0
	Orthodontists	3	3.0	3.0	74.0
	Endodontists	3	3.0	3.0	77.0
	Prothodontists	4	4.0	4.0	81.0
	Pedodontist	2	2.0	2.0	83.0
	Community dentist	6	6.0	6.0	89.0
	Restorative dentist	9	9.0	9.0	98.0
	Oral medicine and radiologist	2	2.0	2.0	100.0
Total		100	100.0	100.0	

The majority (66%) were general practitioners (66%), followed by oral & maxillofacial surgeon and restorative dentist (9%).

Figure (3): showing specialty of participants.

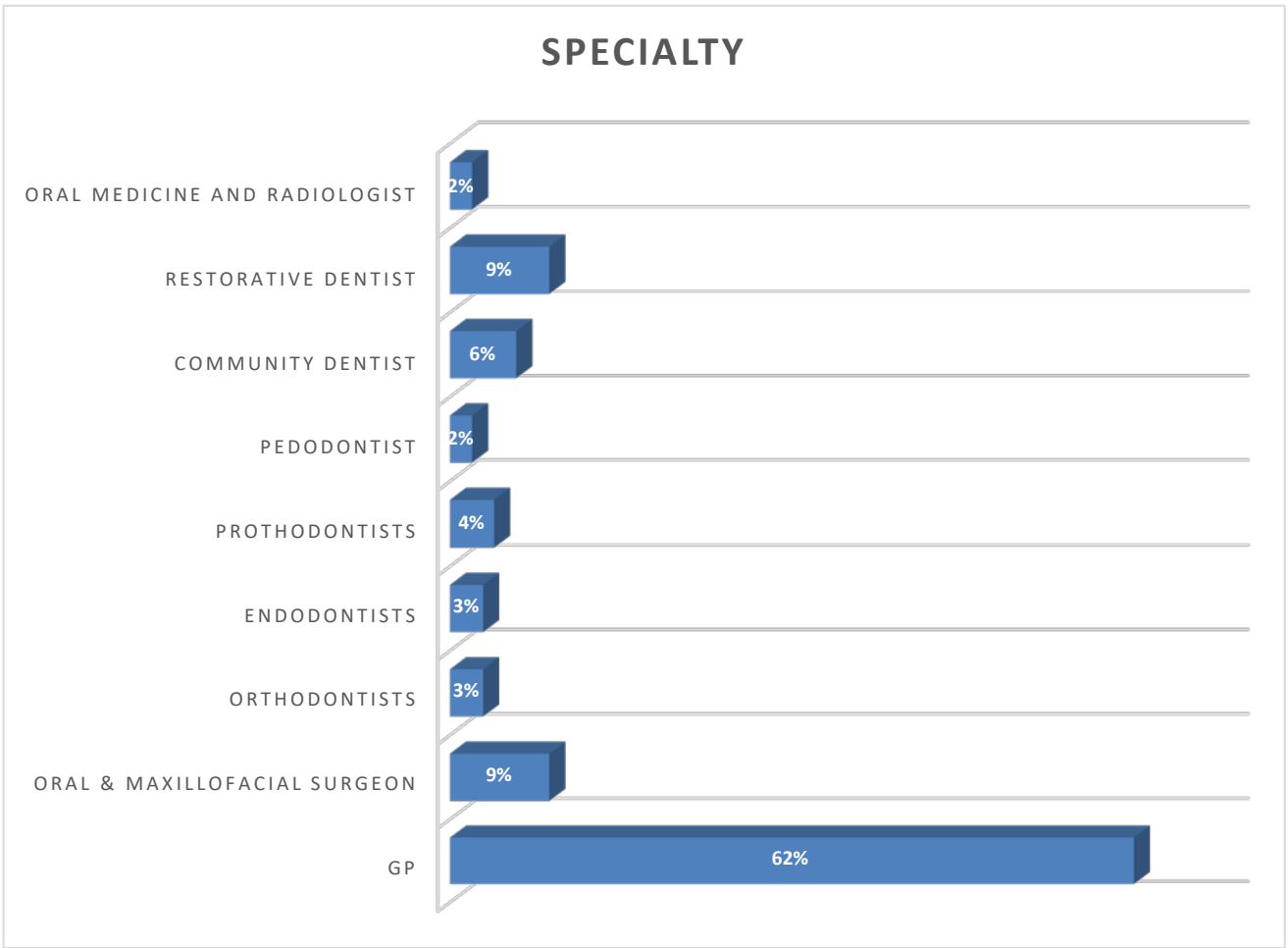


Table (4): showing experience years of participants.

Table 4					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 5 years	50	50.0	50.0	50.0
	6-10 years	23	23.0	23.0	73.0
	11-15 years	12	12.0	12.0	85.0
	16-20 years	8	8.0	8.0	93.0
	More than 20 years	7	7.0	7.0	100.0
Total		100	100.0	100.0	

The majority (50%) said less than 5 years, followed by 6-10 years (23%).

Figure (4): showing experience years of participants.

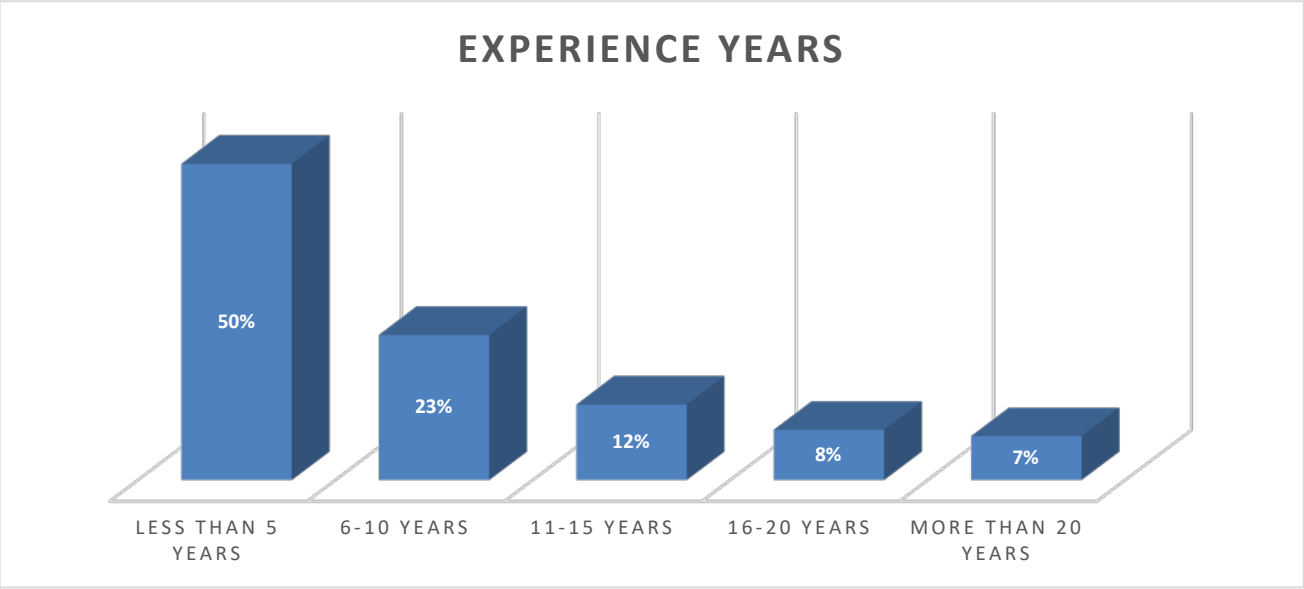


Table (5): showing if they think most common oral cancer is Squamous cell carcinoma.

Table 5					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	93	93.0	93.0	93.0
	No	2	2.0	2.0	95.0
	I don’t know	5	5.0	5.0	100.0
Total		100	100.0	100.0	

The majority (93%) said yes, while (5%) said I don’t know and (2%) said no.

Figure (5): showing if they think most common oral cancer is Squamous cell carcinoma.

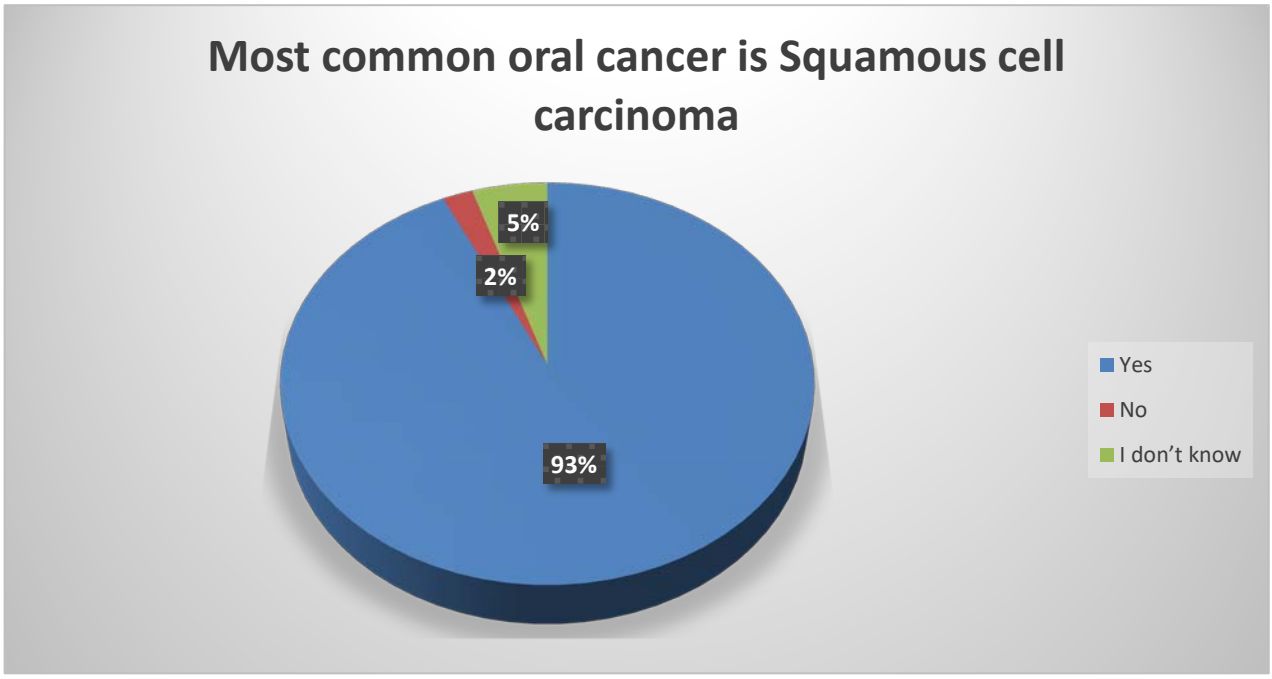


Table (6): showing if they think the common age range is 20-35.

Table 6				
	Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Yes	18	18.0	18.0	18.0
	No	69	69.0	69.0	87.0
	I don’t know	13	13.0	13.0	100.0
Total		100	100.0	100.0	

The majority (69%) said no, while (18%) said yes and (13%) said I don’t know.

Figure (6): showing if they think the common age range is 20-35.

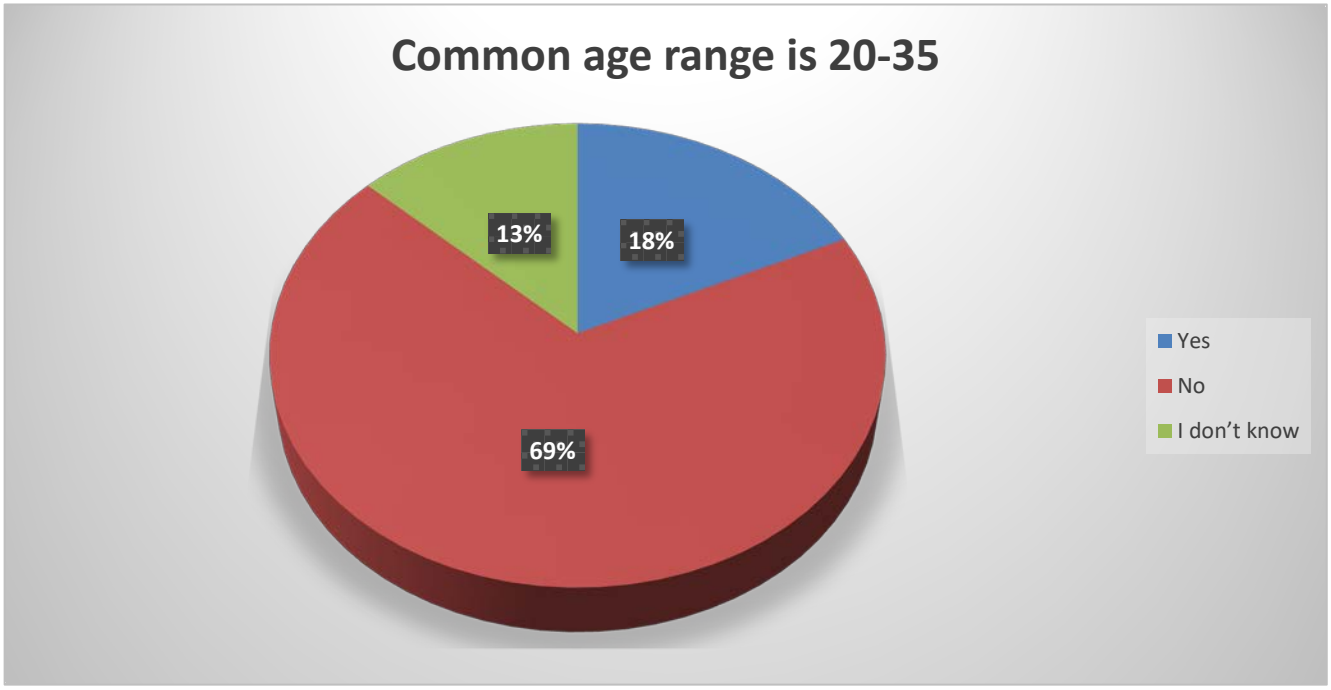


Table (7): showing if they think the most common risk factor is habits as tobacco.

Table 7					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	98	98.0	98.0	98.0
	No	2	2.0	2.0	100.0
Total		100	100.0	100.0	

The majority (98%) said yes, while only (2%) said no.

Figure (7): showing if they think the most common risk factor is habits as tobacco.

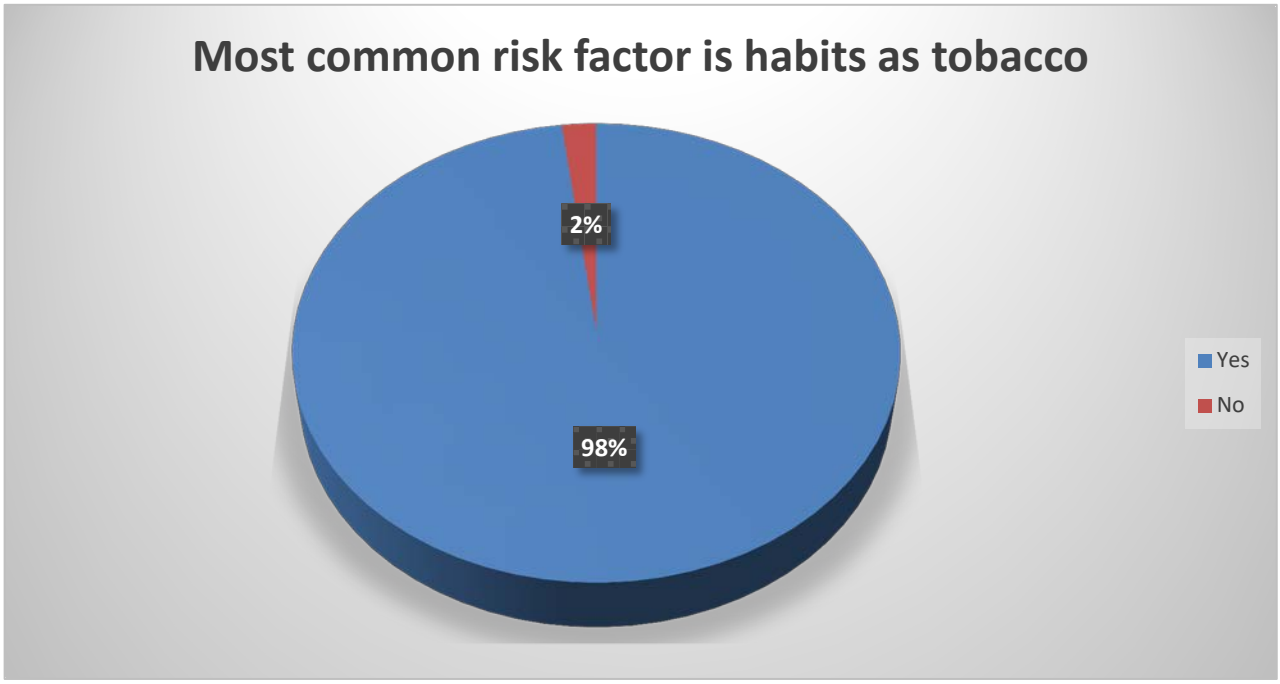


Table (8): showing if they think the common precancerous disorders is leukoplakia.

Table 8					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	85	85.0	85.0	85.0
	No	9	9.0	9.0	94.0
	I don't know	6	6.0	6.0	100.0
Total		100	100.0	100.0	

The majority (85%) said yes, while only (9%) said no.

Figure (8): showing if they think the common precancerous disorders is leukoplakia.

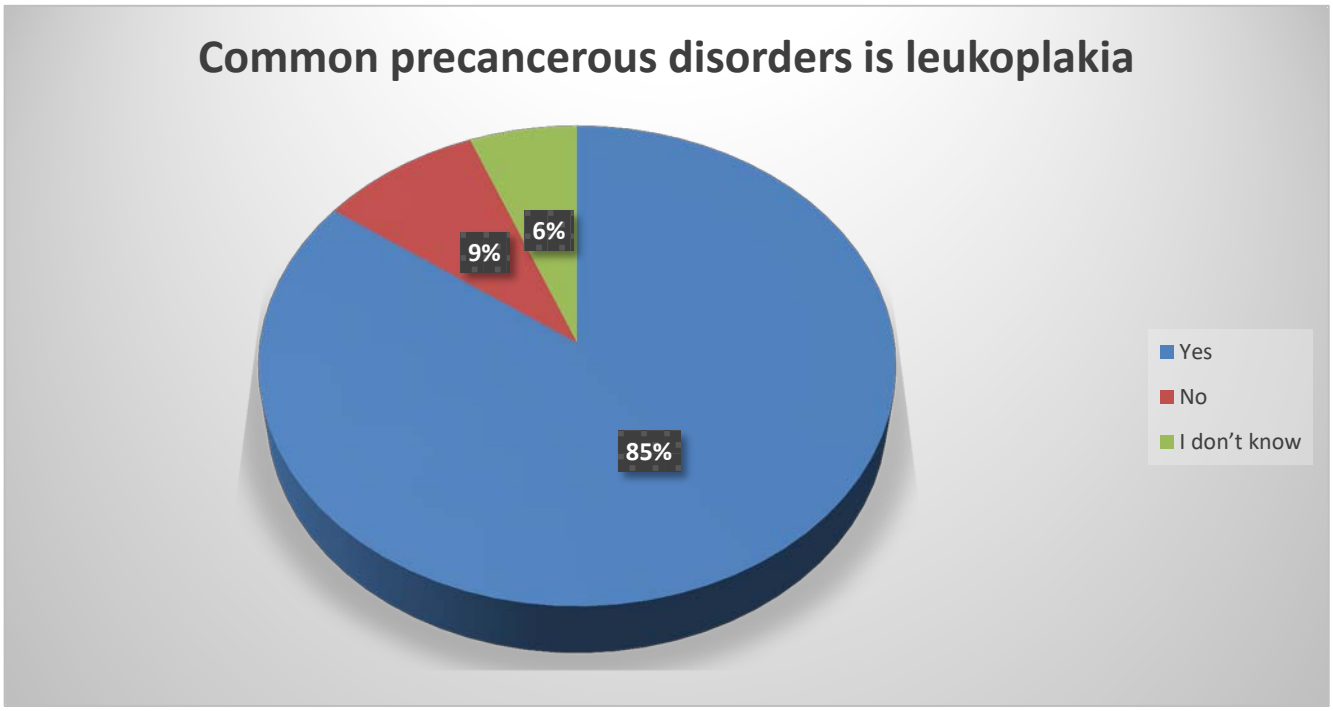


Table (9): showing if they think the lower lip is the most common site of oral cancer.

Table 9					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	60	60.0	60.0	60.0
	No	30	30.0	30.0	90.0
	I don't know	10	10.0	10.0	100.0
Total		100	100.0	100.0	

The majority (60%) said yes, while (30%) said no and (10%) said I don't know.

Figure (9): showing if they think the lower lip is the most common site of oral cancer.

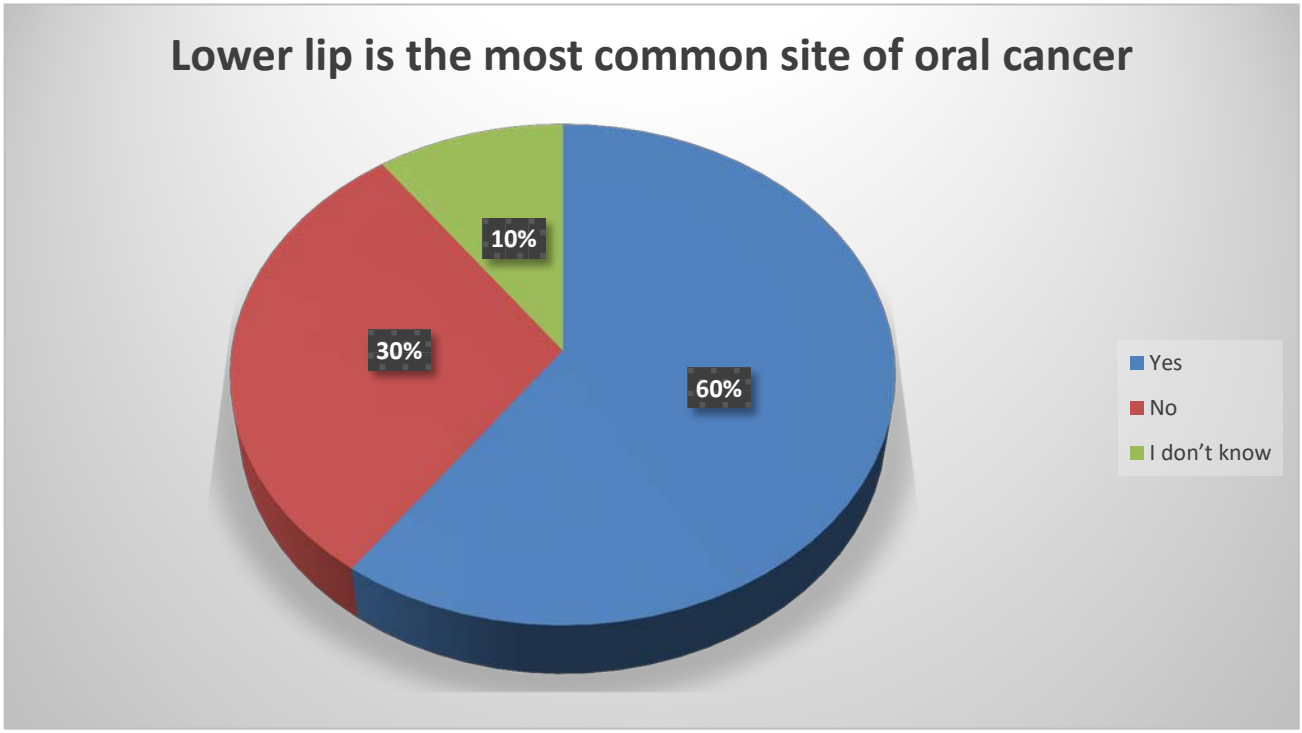


Table (10): showing if they think malignant transformation is higher in red lesions than white lesions.

Table 10					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	62	62.0	62.0	62.0
	No	19	19.0	19.0	81.0
	I don't know	19	19.0	19.0	100.0
Total		100	100.0	100.0	

The majority (62%) said yes, while (19%) said no and I don't know.

Figure (10): showing if they think malignant transformation is higher in red lesions than white lesions.

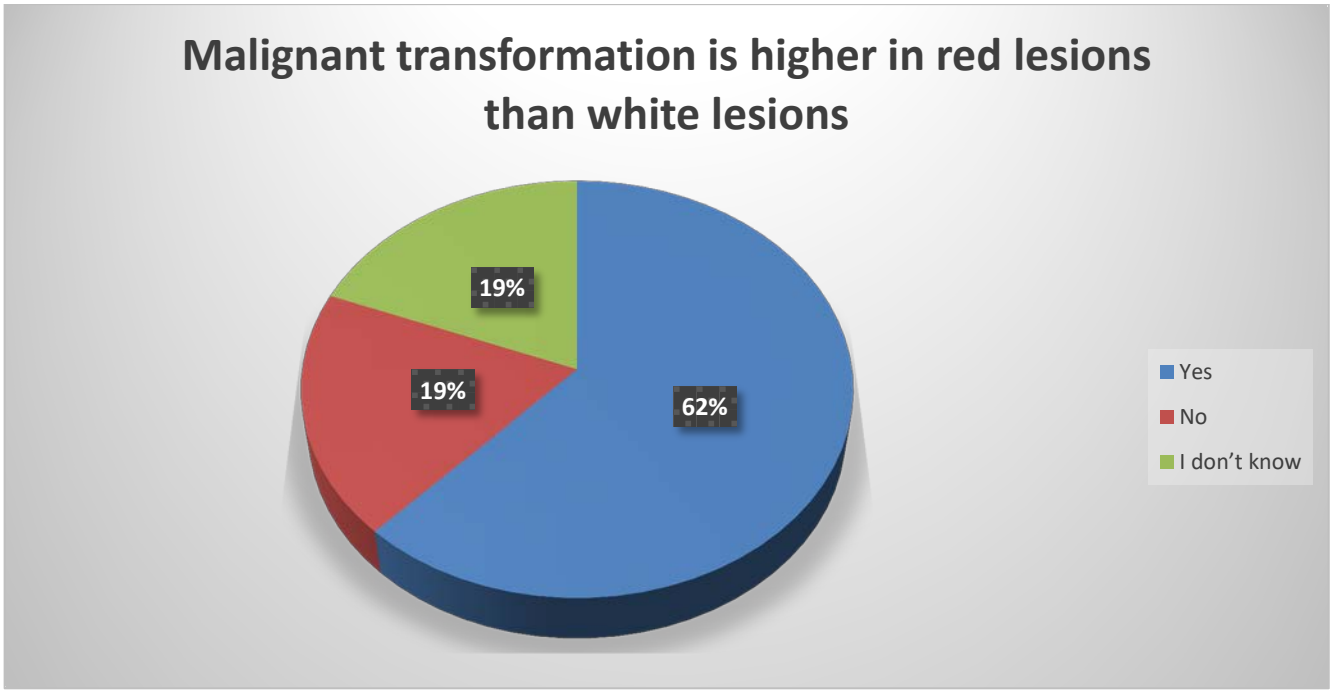


Table (11): showing if they think the best treatment of oral cancer is radiotherapy.

Table 11					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	31	31.0	31.0	31.0
	No	50	50.0	50.0	81.0
	I don't know	19	19.0	19.0	100.0
Total		100	100.0	100.0	

The commonest answer was no (50%), followed by yes (31%).

Figure (11): showing if they think the best treatment of oral cancer is radiotherapy.

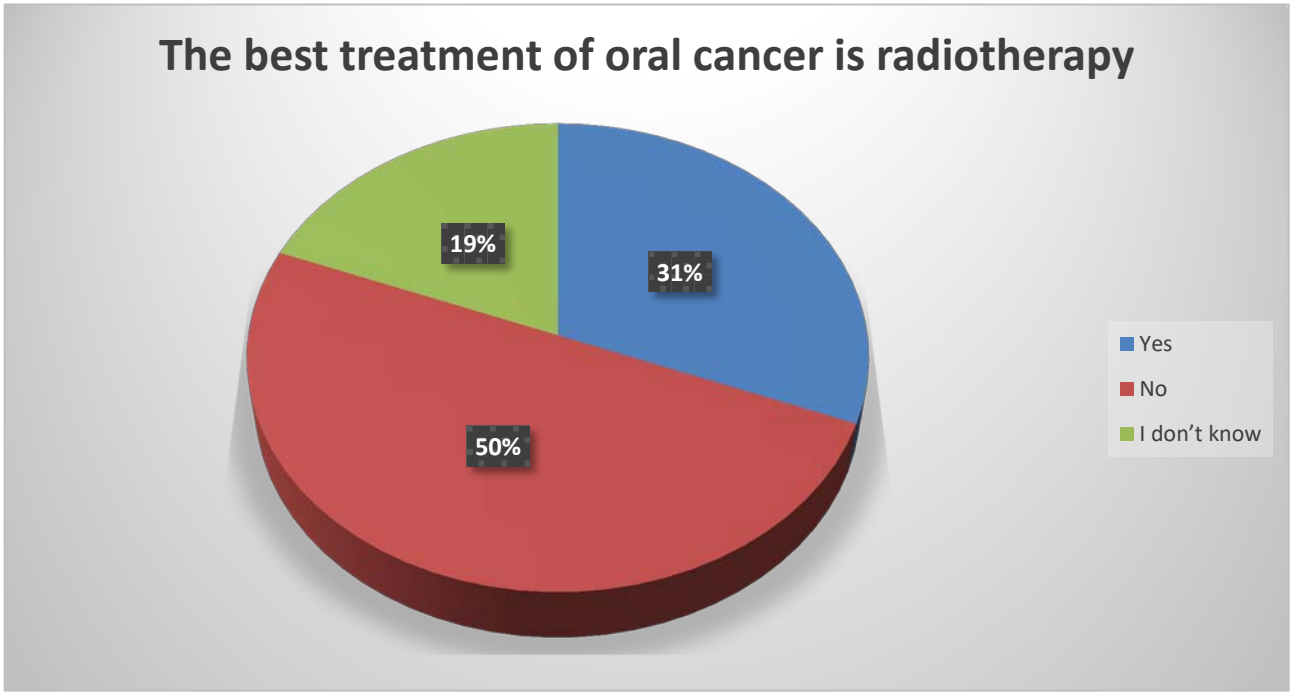


Table (12): showing if they feel that they are adequately trained to provide alcohol/smoking cessation education.

Table 12					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	32	32.0	32.0	32.0
	No	41	41.0	41.0	73.0
	Maybe	27	27.0	27.0	100.0
Total		100	100.0	100.0	

The commonest answer was no (41%), followed by yes (32%).

Figure (12): showing if they feel that they are adequately trained to provide alcohol/smoking cessation education.

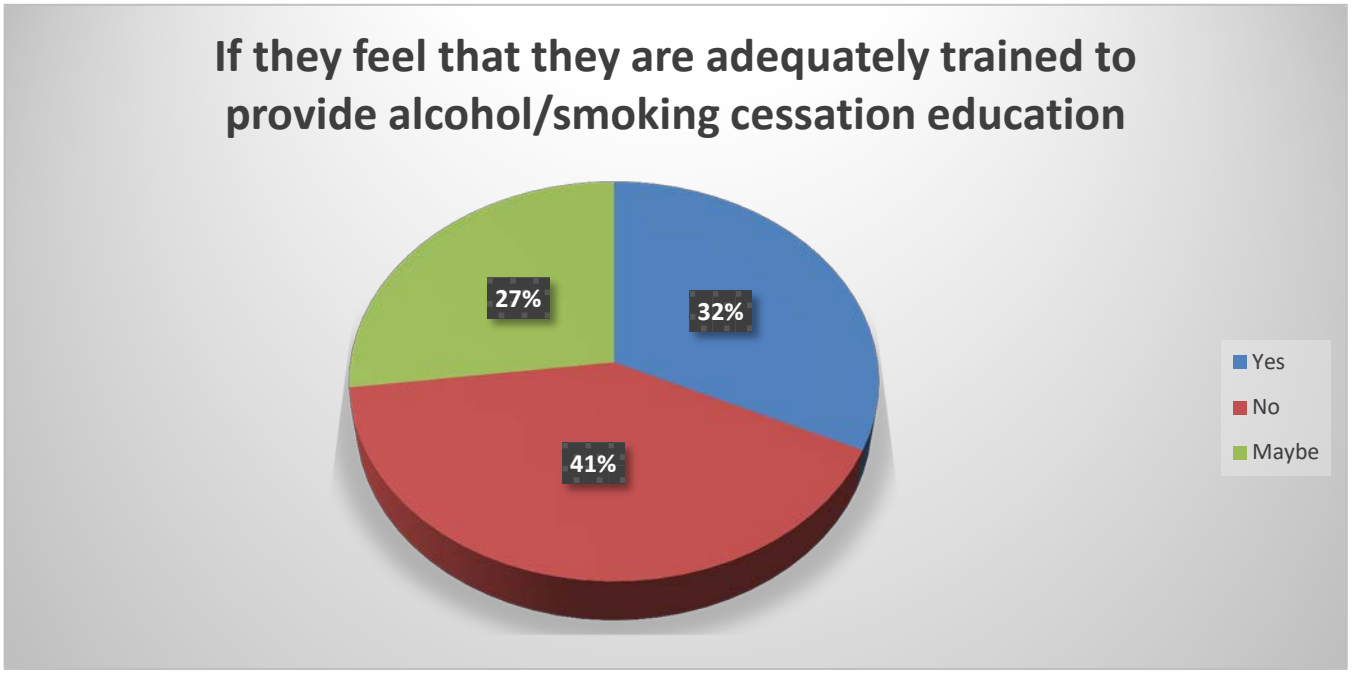


Table (13): showing if they are adequately trained to perform patients' lymph node palpation.

Table 13					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	79	79.0	79.0	79.0
	No	6	6.0	6.0	85.0
	Maybe	15	15.0	15.0	100.0
Total		100	100.0	100.0	

The majority (79%) said yes, while (15%) said maybe and (6%) said no.

Figure (13): showing if they are adequately trained to perform patients' lymph node palpation.

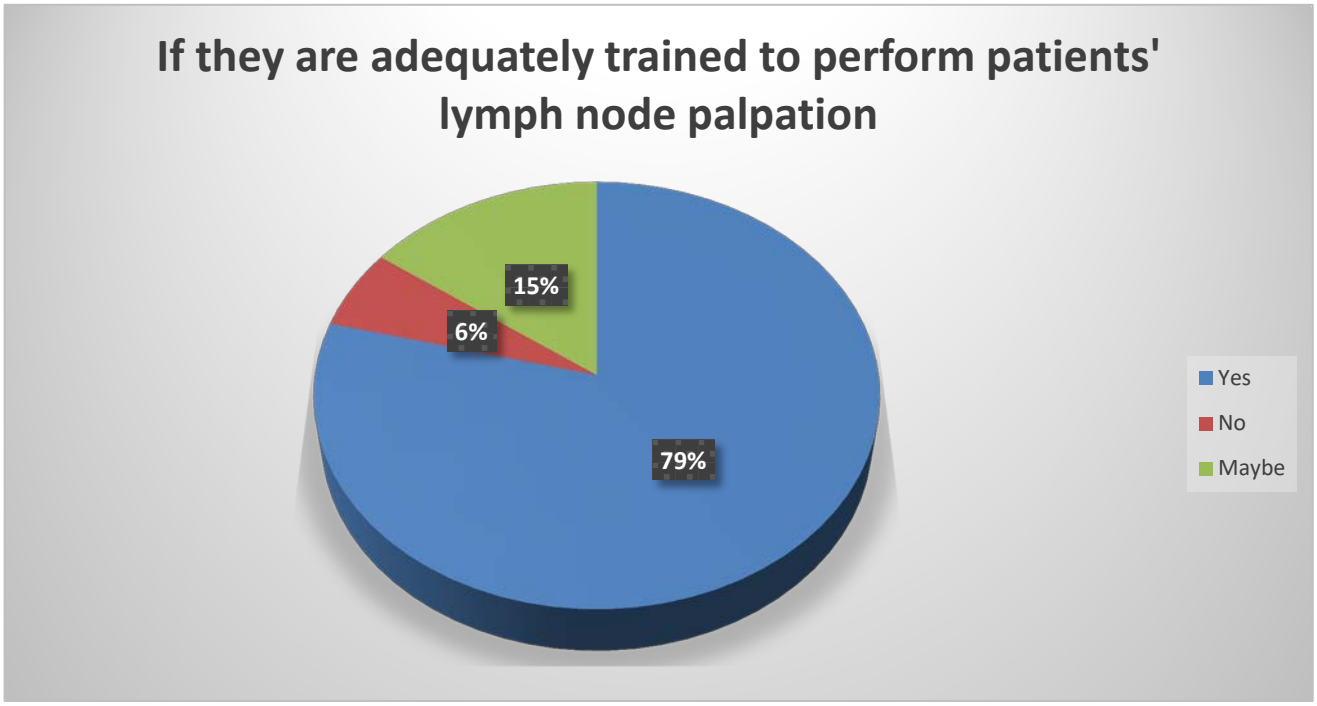


Table (14): showing if they would like more information or training on oral cancer.

Table 14					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	76	76.0	76.0	76.0
	No	7	7.0	7.0	83.0
	Maybe	17	17.0	17.0	100.0
Total		100	100.0	100.0	

The majority (76%) said yes, while (17%) said maybe and (7%) said no.

Figure (14): showing if they would like more information or training on oral cancer.

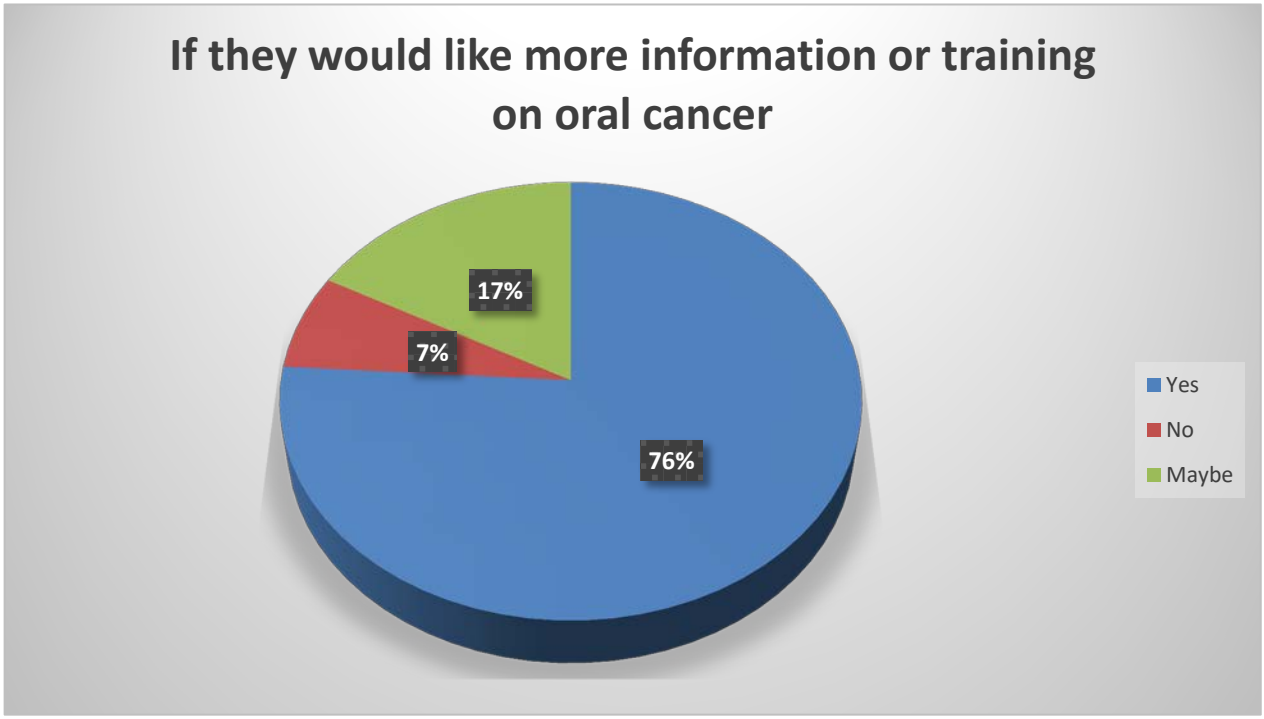


Table (15): showing if they feel that they have sufficient knowledge of prevention and detection of oral cancer.

Table 15					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	40	40.0	40.0	40.0
	No	31	31.0	31.0	71.0
	Maybe	29	29.0	29.0	100.0
Total		100	100.0	100.0	

The commonest answer was yes (40%), followed by no (31%) and then maybe (29%).

Figure (15): showing if they feel that they have sufficient knowledge of prevention and detection of oral cancer.

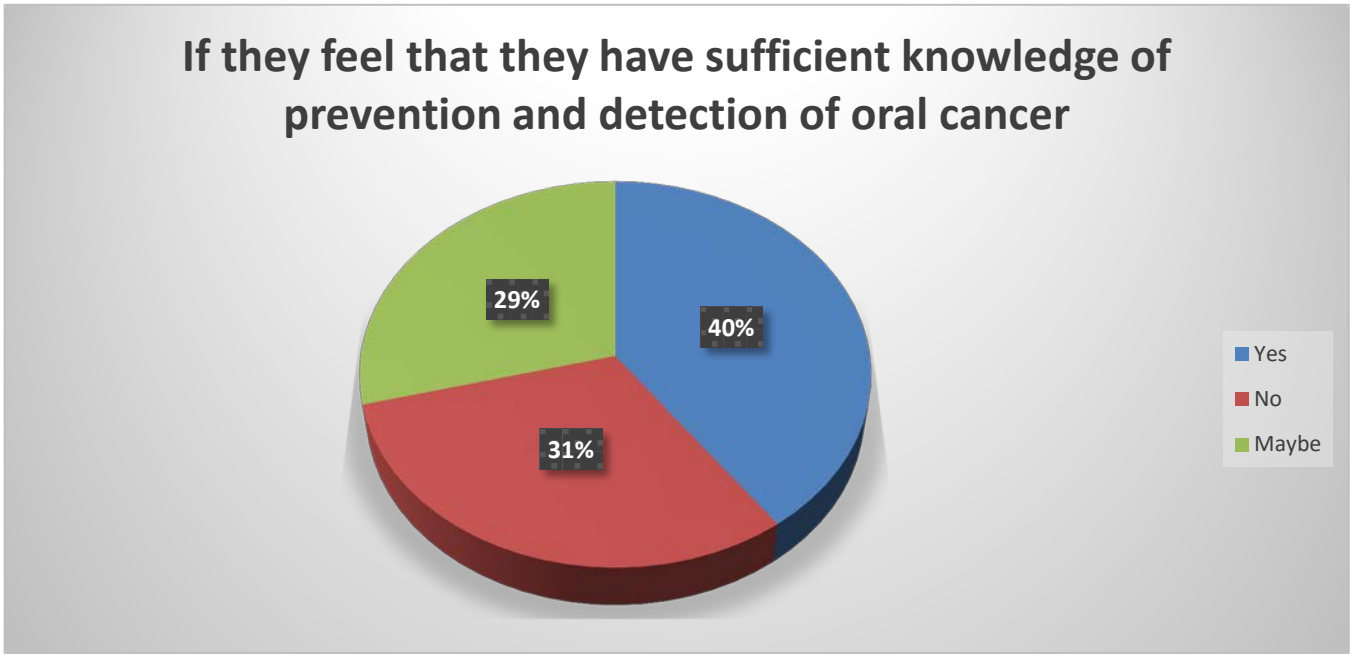


Table (16): showing if they think it is a waste of time to educate the patient to quit their habits.

Table 16					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	18	18.0	18.0	18.0
	No	73	73.0	73.0	91.0
	Maybe	9	9.0	9.0	100.0
Total		100	100.0	100.0	

The commonest answer was no (73%), followed by yes 18%) and then maybe (9%).

Figure (16): showing if they think it is a waste of time to educate the patient to quit their habits.

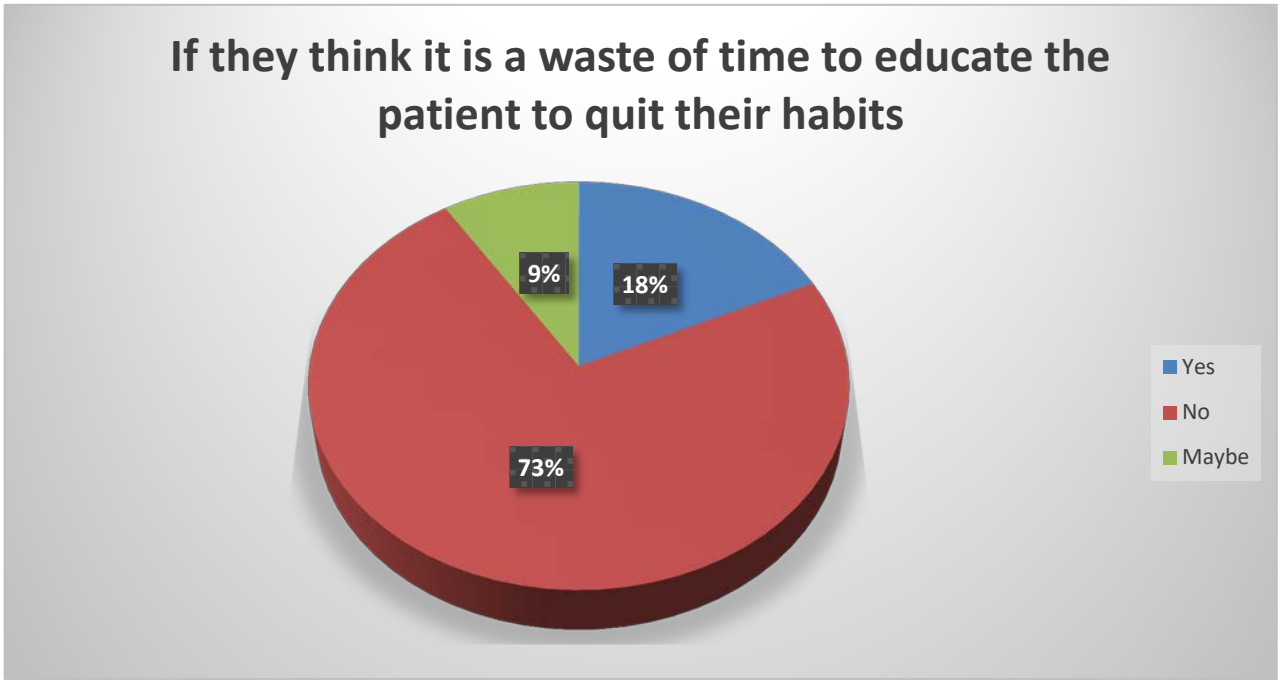


Table (17): showing if they think patients with suspected oral cancerous lesions should be referred to a specialist.

Table 17					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	94	94.0	94.0	94.0
	No	0	0	0	94.0
	Maybe	6	6.0	6.0	100.0
Total		100	100.0	100.0	

The majority (94%) said yes, while (6%) said maybe.

Figure (17): showing if they think patients with suspected oral cancerous lesions should be referred to a specialist.

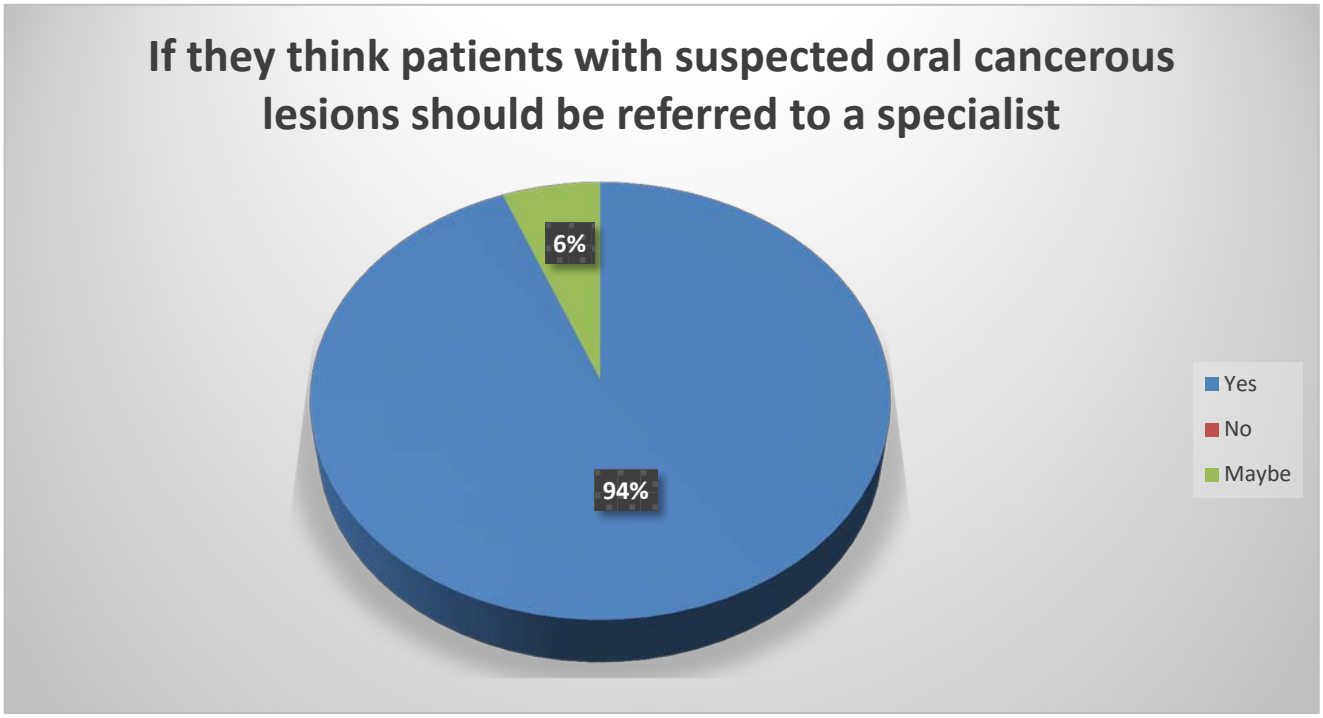


Table (18): showing if they examine patients and oral mucosa routinely.

Table 18					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	72	72.0	72.0	72.0
	No	7	7.0	7.0	79.0
	Sometimes	21	21.0	21.0	100.0
Total		100	100.0	100.0	

The majority (72%) said yes, while (21%) said sometimes and (7%) said no.

Figure (18): showing if they examine patients and oral mucosa routinely.

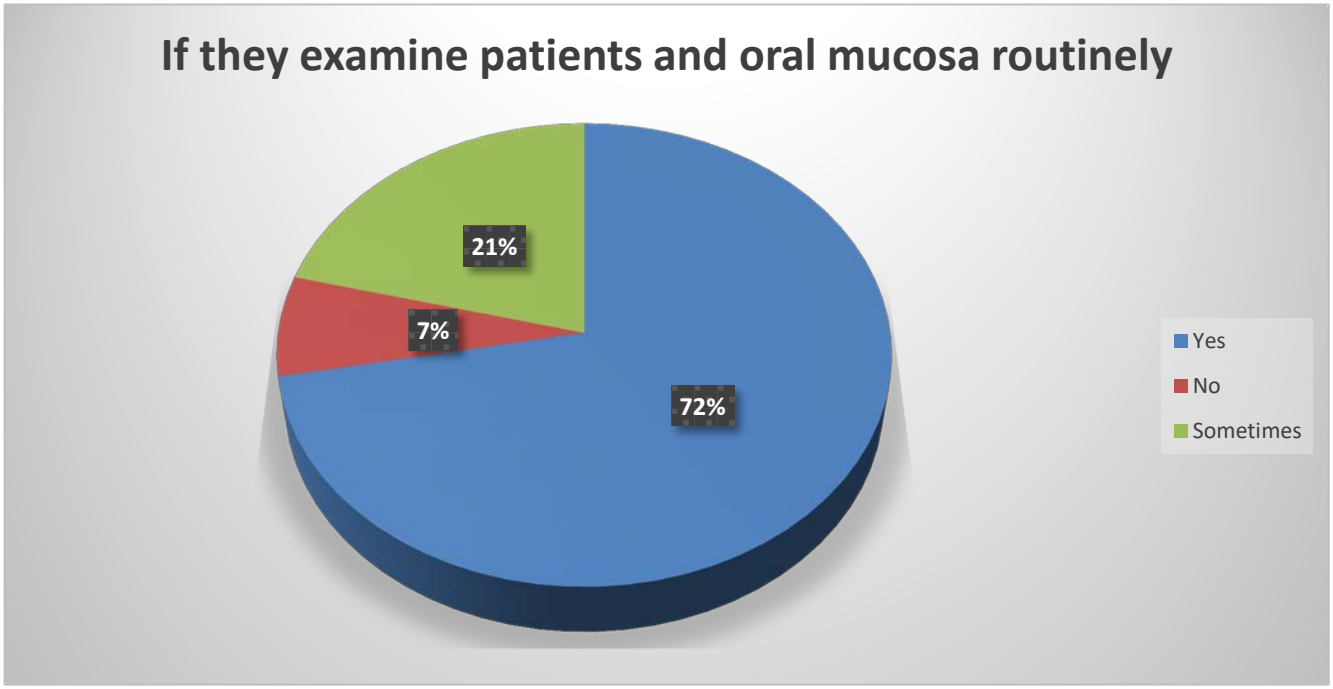


Table (19): showing if they record tobacco and alcohol use in personal history.

Table 19					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	81	81.0	81.0	81.0
	No	7	7.0	7.0	88.0
	Sometimes	12	12.0	12.0	100.0
Total		100	100.0	100.0	

The majority (81%) said yes, while (12%) said sometimes and (7%) said no.

Figure (19): showing if they record tobacco and alcohol use in personal history.

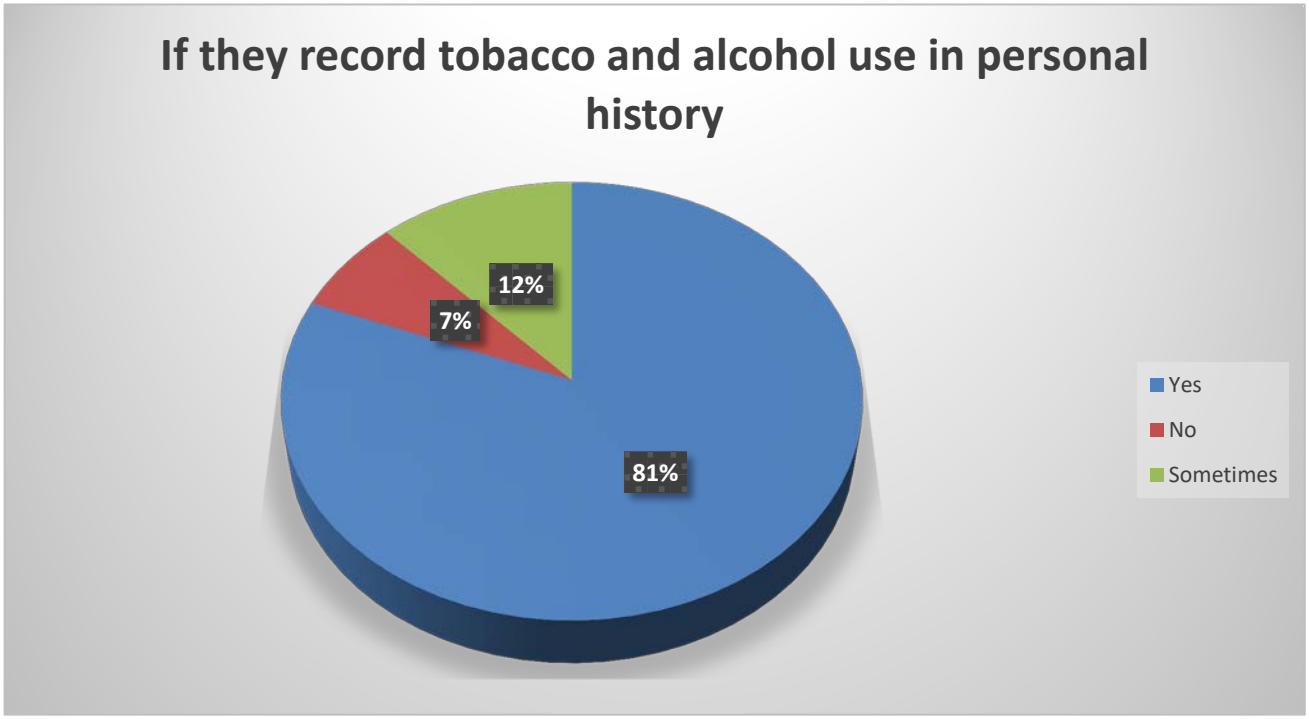


Table (20): showing if they practice complete oral cavity examination besides palpating lymph nodes routinely.

Table 20					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	52	52.0	52.0	52.0
	No	15	15.0	15.0	67.0
	Sometimes	33	33.0	33.0	100.0
Total		100	100.0	100.0	

The commonest answer was yes (52%), followed by sometimes (33%) and then no (15%).

Figure (20): showing if they practice complete oral cavity examination besides palpating lymph nodes routinely.

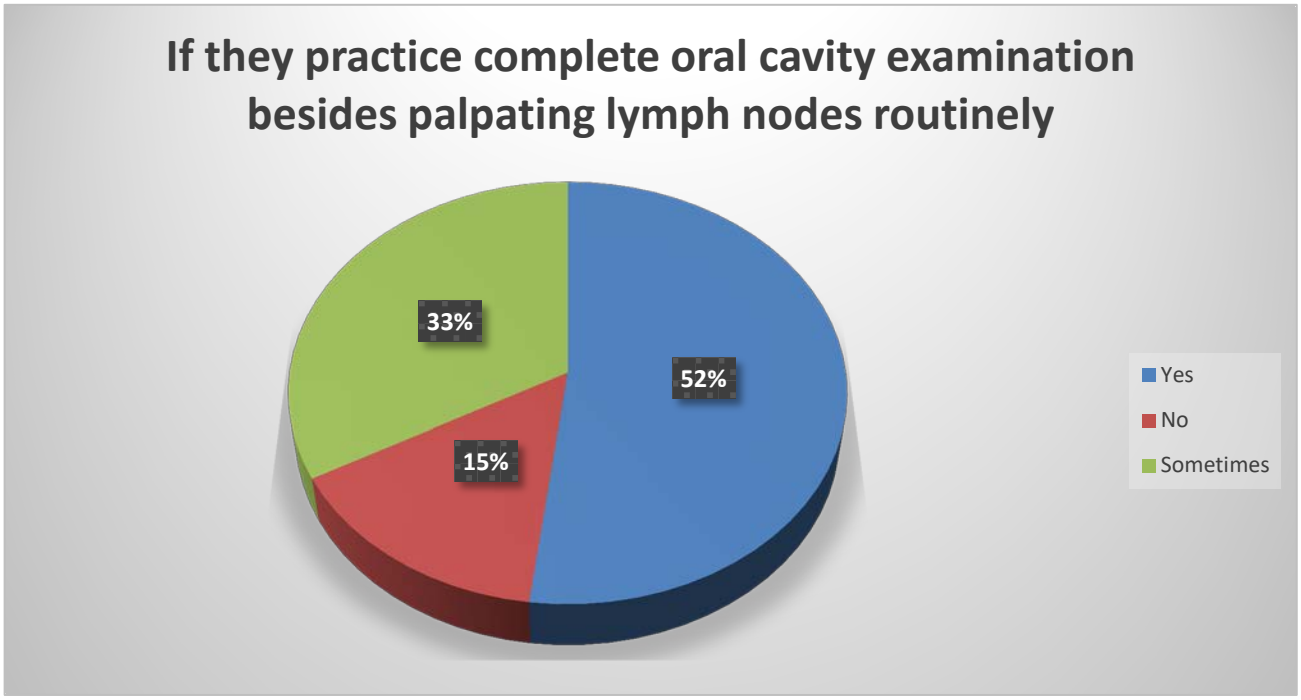
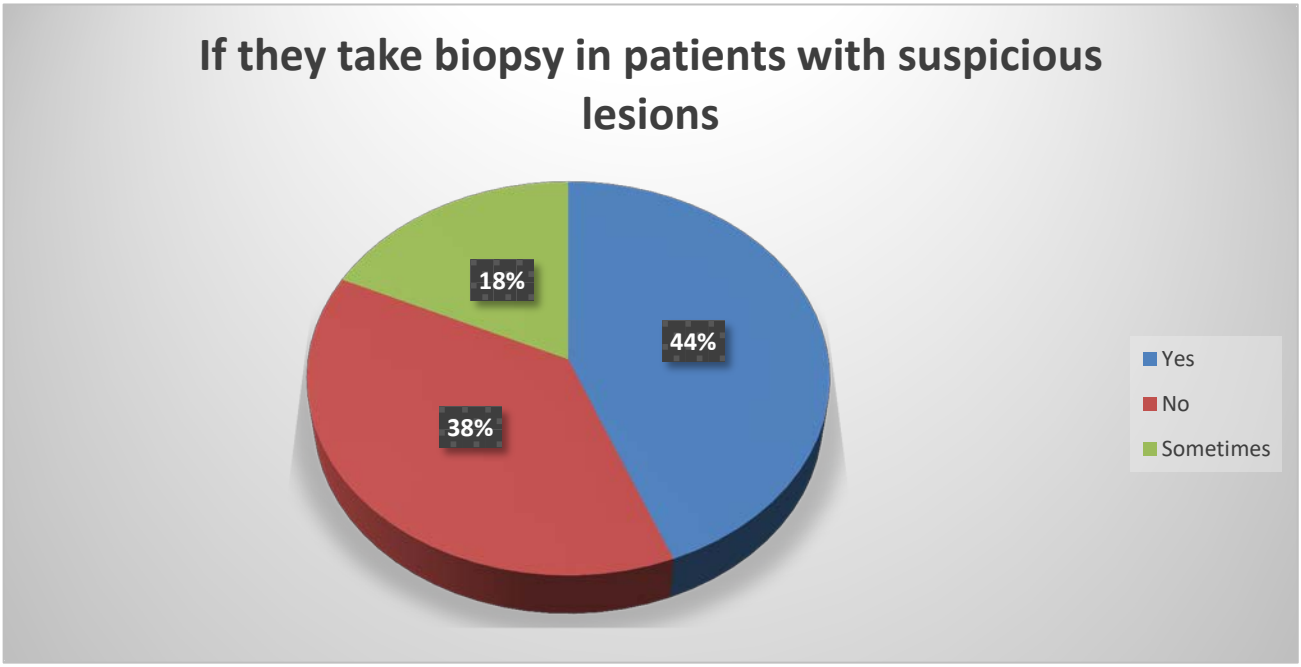


Table (21): showing if they take biopsy in patients with suspicious lesions.

Table 21					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	44	44.0	44.0	44.0
	No	38	38.0	38.0	82.0
	Sometimes	18	18.0	18.0	100.0
Total		100	100.0	100.0	

The commonest answer was yes (44%), followed by no (38%) and then sometimes (18%).

Figure (21): showing if they take biopsy in patients with suspicious lesions.



Chapter Four:

4.1 Discussion

4.2 Conclusion

4.3 Recommendations

4.1 Discussion

In the gender distribution of participants, females were (67%) more than males (33%) in this study. While in a study in the State of Qatar, the males were (51.9%) more than females (48.1%), in another study in Kuwait, males (62.3%) also more than females (37.7%), and so in similar study in upper Egypt males (51.5%) also more than females (48.5%).

Regarding to the practice of participants in our study general practitioner were (66%), specialists were (23%) and the consultant were (11%), while in a study in Qatar general practitioner were (58%) and the specialist were (41%), in a study in Kuwait the GP were (75%) and the specialist were (24%), in a study in upper Egypt GP were (83%)

Regarding experience years of participants in our study the majority were less than 5 years (50%) followed by 6 to 10 years (23%), while in study in Qatar the majority were more than 15 years (52%) and the least were less than 5 years (2.30%), in study in Egypt the majority were 1 to 5 years (37%) the least were 20 to 30 years (3%).

About the most common type of oral cancer a high proportion of dentist in the studies we compared correctly replied that it's the squamous cell carcinoma the percentage in our study were (93%), in Qatar were (84%), in Egypt were (82%), and in Kuwait were (80%).

According to the common age range is between 20-35 the majority disagreed which is (69%), while a study in in Qatar the majority disagreed (69%).and the most common risk factor is habits as tobacco in our study (98%) answered correctly, a study in Kuwait (99%) agreed

Due to the most common precancerous disorders is leukoplakia The majority (85%) said yes, while only (9%) said no, in study in Qatar (53%) said yes.

The most common site is lower lip The majority (60%) said yes, while (30%) said no and (10%) said I don't know, Qatar study agreed that the tongue were (77%) , Kuwait study(80%) agreed to lower lip.

Regarding the malignant transformation is higher in red lesions than white lesions in our study the majority (62%) said yes, while (19%) said no and I don't know, in study in Qatar (76%) said yes.

Regarding their feel that they are adequately trained to provide alcohol /smoking cessation education (32%) said yes, (41%) said no and (27%) said may be. While study in Egypt , while study in Qatar(77.6%) reported that they have no educational material on OC.

Due to if they would like more information or training in oral cancer the majority (76%) said yes,(7%) said maybe and (17%)said no. While study in Egypt (84%) of dentists were interested in attending education courses on OC. While study in Kuwait the majority (92.4%) were interested attending education courses on OC.

Regarding if they feel that they have sufficient knowledge of prevention and detection oral cancer the most answers was yes (40%), followed by no(31%) and then may be (29%).while study in Qatar (66.7%) agree about their knowledge about OC

According to if they think it is waste of time to educate the patient to quite their habits comments answer was no(73%), followed by yes(18%),and then maybe (9%). While study in Qatar the majority of dentists (90%) agreed that should be trained to provide tobacco cessation education.

About if they think patients with suspected oral cancerous lesion should be referred to a specialist the majority (94%) said yes. (6%) said may be. While study in Qatar (65%) agreed referring patients with suspected lesions to a specialist. While study in Kuwait (81%) of dental practitioners refer patients with suspected lesion to a specialist.

About if they examine patients and oral mucosa routinely the majority (72%)said yes, (21%) said no, and (7%) said sometimes. While study in Egypt (37.5%) do routine examination every patient's oral mucosa.

About if they record tobacco and alcohol use in personal history the majority (84%)said yes, (12%)said sometimes, and (7%) said no. While study in Egypt
(80%) of dentists recorded in personal history. While study in Qatar (68%) asked about alcohol use , and (89.2%) ask about tobacco use.

About if they practice complete oral cavity examination besides palpation lymph nodes routinely commonest answer was yes (52%), followed by sometimes (33%)and then no (15%).while study in Egypt only done by (37.5%),

4.2 Conclusions

Assessing dentists' knowledge is one way to measure their performance. This study identified gaps in knowledge among dentists practicing in the Khartoum State, Sudan which strongly suggested that dentists need to increase their knowledge about oral cancer. More continuing education programs on risk factors and diagnosis of oral cancer should be organized to train dentists. Oral cancer screening should be a routine procedure for the high risk patients at the primary oral health care centers in Sudan.

4.3 Recommendations

1. We recommended to do another same studies in different states of Sudan

2. To increase level of awareness about O C among dentists

3. To add more courses about oral cancer in understand curriculum

4. To raises the awareness about relation between oral cancer and risk factors among publications

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